

## Naval Innovators Prepare for the Coming Singularity with Post-MMOWGLI Workshop



*170815-D-AE587-015 Innovators at Naval Surface Warfare Center, Carderock Division; Space and Naval Warfare Systems Command, Atlantic; and Naval Postgraduate School (NPS) pose for a photo on the NPS grounds in Monterey, Calif., on Aug. 15, 2017, after spending time at the Singularity massive multiplayer online wargame leveraging the Internet (MMOWGLI) workshop. (U.S. Navy photo Javier B. Chagoya/Released)*

### By DON Innovation

Innovators at Naval Surface Warfare Center, Carderock Division; Space and Naval Warfare Systems Command, Atlantic; and Naval Postgraduate School (NPS) have spent the last several months curating the output from a massive multiplayer online wargame leveraging the Internet (MMOWGLI). These examine how the Navy might address the emergence of greater-than-human intelligence from technological means, otherwise known as “the Singularity.”

The “Design for Maritime Singularity MMOWGLI” took place in the spring and asked players to collaborate on responses to two distinct, yet complementary questions: “What concepts for human-machine teaming might we develop as we approach the Singularity?” and, “As complexity rises all around us, what new organizational constructs should we consider?”

According to Carderock’s Director for Innovation Garth Jensen, who designed the game, the impetus for the MMOWGLI rose from a growing concern that the Singularity represents “a tidal wave of change approaching the Navy. This wave presents us with a binary choice. If we

recognize this wave in time, we can ride it and harness its energy. But if we ignore this wave, or try to resist it, we will get washed up on the shoals of history. There's really no middle ground. We either ride the wave or get crushed by the pace of change."

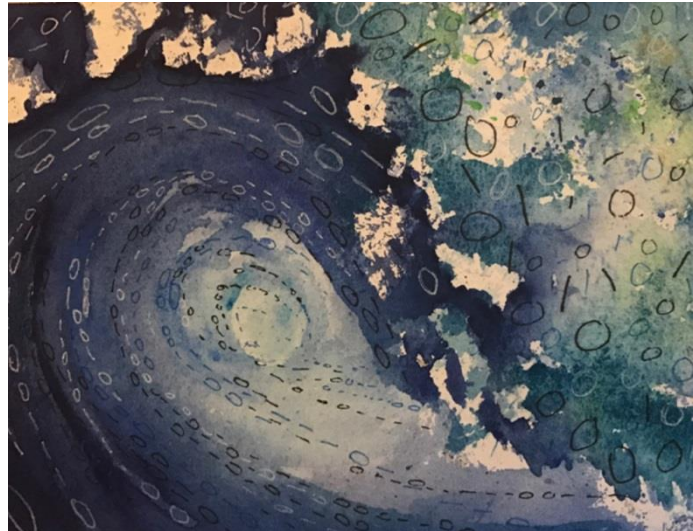
The game was hosted on NPS's MMOWGLI platform, playable on any web browser or mobile device. Jensen said the audience response to this game was among MMOWGLI's most vibrant ever, with more than 21,000 YouTube views, 4,000 signups, 1,250 active players, 9,000 idea cards played and 45 action plans developed by participants.

Following the game, Jensen, teaming up with Dr. Matt Largent of Space and Naval Warfare Systems Command, combed through all 9,000 idea cards and 45 action plans, using "hermeneutics," a process more often associated with theology and the liberal arts than with standard engineering practice.

"We had to treat the MMOWGLI output as a form of literary text, reading it several times through, highlighting major themes and significant outliers, sometimes stitching disjoint threads together to form a completely new idea," Jensen said. "Our goal was to uncover those ideas that warranted further detailed development."

From there, Jensen and Largent enlisted the services of Lyla Englehorn, from NPS, to plan and conduct a workshop this summer at NPS in Monterey, California. Englehorn, whom Jensen called "a world-class design thinker and practitioner," put together a three-day workshop using design-thinking principles, drawing participants from across the Naval Research and Development Enterprise (NR&DE). Using Jensen and Largent's curated MMOWGLI output as her "Design Challenge," Englehorn divided her workshop into three smaller teams, each focused on a different aspect of the Singularity and each one challenged to come up with an actionable, fully formed idea by the end of the workshop.

Jensen said the workshop was a success, and the teams presented their results at the end of the workshop to an audience including the sponsor, as well as leadership from NPS and the NR&DE. Jensen said he and Largent are now working on a final report of all the data from both the game and workshop.



*This wave was designed as artwork for the Massive Multiplayer Online Wargame Leveraging the Internet (MMOWGLI) game taking place in March. The 'Design for Maritime Singularity-MMOWGLI' is meant to help design the Navy of the future. The designer of the wave is Lt. Cmdr. Kristen Wheeler, executive officer of Naval Operations Support Center San Jose in California. (Released)*

You can read more about MMOWGLI in Carderock's previous article at [http://www.navy.mil/submit/display.asp?story\\_id=99069](http://www.navy.mil/submit/display.asp?story_id=99069).

You can also see the call to action video here: <https://www.youtube.com/watch?v=Oc2zV6hffsY&t=54s>.